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A NEW LONGHORNED BELLY RIVER CERATOPSIAN

BY BARNUM BROWN

Among the specimens collected by the American Museum expedition to the Red Deer River, Alberta, in 1913, is a splendid ceratopsian skull previously identified as *Ceratops*, but which Dr. Richard Swann Lull points out conforms in general characters to the Belly River genus *Chasmosaurus*.

The genus *Chasmosaurus* Lambe, Doctor Lull diagnoses for the most part as follows: Skull long and low; muzzle generally long with small rostral; face short with the three horns approximated; crest very long

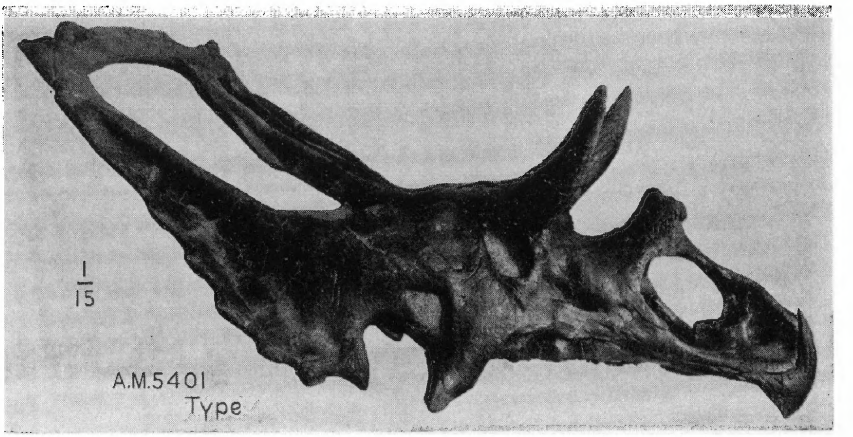

Fig. 1. *Chasmosaurus kaiseni.* Type. A. M. N. H. No. 5401, skull, right side. One-fifteenth natural size.

and comparatively flat, with long, triangular squamosals extending nearly to the posterior margin of the crest; median element of the crest (dermo-supraoccipital?), a straight longitudinal bar, convex above and flatly concave below which separates the two large fenestrae. At the rear this bar bifurcates, meeting the squamosals and sending a narrow process forward on either side to meet, in an overlapping suture, one extending backward from the anterior part of the central element. These form the outer border of the fenestrae, thus separating it from the squamosal;

epoccipitals, about nine in number, border the squamosal; a variable number are present on the posterior margin of the central element, of which a large pair at the outer corners of the crest are the most constant in position and occurrence; crest without vascular impressions; nasal horn shorter than in the contemporaries, *Centrosaurus* or *Styracosaurus*, rather stocky and of variable length; brow horns range from incipient mere roughenings above the orbit to the elongated ones of the present species.

It gives me great pleasure to name this species after Mr. Peter C. Kaisen, my friend and able assistant during many expeditions, skilled preparator, and a member of the American Museum staff for more than a third of a century.

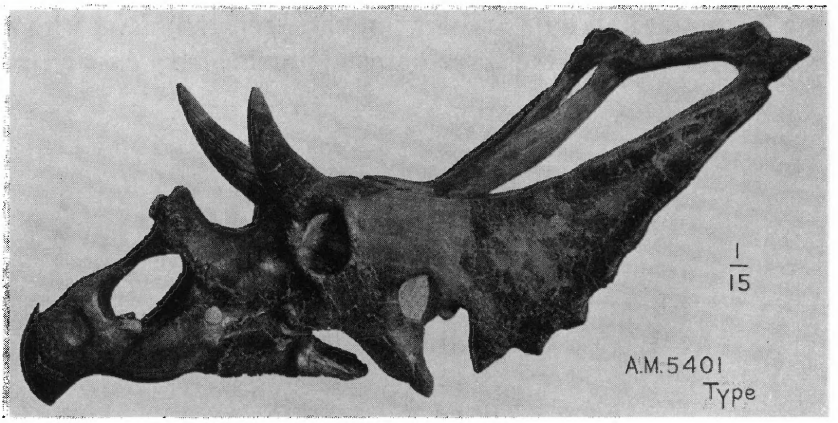

Fig. 2. *Chasmosaurus kaiseni.* Type. A. M. N. H. No. 5401, skull, left side. One-fifteenth natural size.

Chasmosaurus kaiseni, new species

TYPE.—A. M. N. H. No. 5401. A nearly perfect skull, without lower jaws. Collected by Barnum Brown and P. C. Kaisen.

HORIZON.—Belly River Cretaceous.

LOCALITY.—Fourteen miles below Steveville, on the Red Deer River, Alberta.

SPECIFIC CHARACTERS.—Muzzle very long, with relatively small rostrum; nasal horn prominent, but not long, somewhat rugose; brow horns large and much longer than any described species of this genus, resembling those of the Judith River species *Ceratops montanus* more nearly than any Belly River form. They rise well over the anterior half of the orbit, flare outward and at the same time bend sharply forward and then curve upward; they are deeply impressed with vascular grooves. The orbit is large and broadly elliptical with the long axis approximately vertical. The squamosal is broad at the anterior end with a pointed epoccipital at the antero-external

angle. The jugal notch is deep and parallel-sided. The jugal is long, sloping outward and backward, bearing a long, pointed epijugal suggestive of *Pentaceratops*. The central bar of the crest in mid-section is trihedral and the rear of the crest is but slightly emarginate.

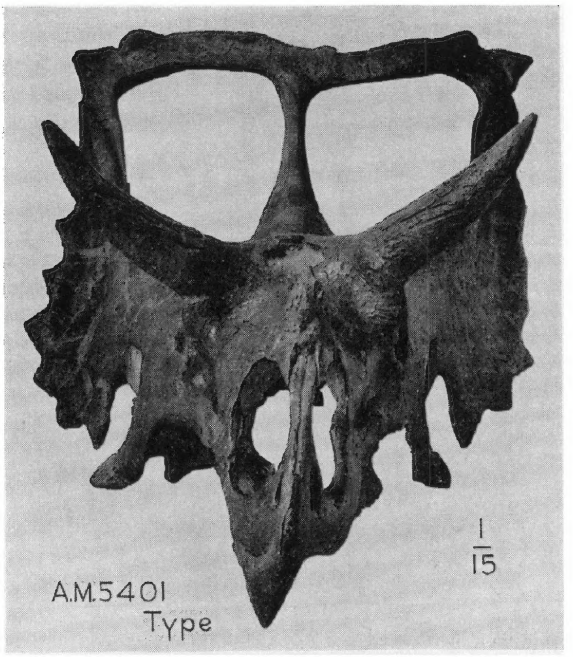

Fig. 3. *Chasmosaurus kaiseni*. Type. A. M. N. H. No. 5401, skull, front view. One-fifteenth natural size.

MEASUREMENTS

Greatest length, from tip of rostrum to rear of crest at outer edge	1520 mm.
Width of crest, across rear end of squamosals	820 mm.
Length from tip of rostrum to posterior end of nasal horn	463 mm.
Length from tip of rostrum to posterior end of jugal	724 mm.
Length from tip of rostrum to anterior edge of orbit	560 mm.
Length from occipital condyle to middle of crest	710 mm.
Length of orbit	102 mm.
Breadth of orbit	62 mm.
Height of brow horn from rim of orbit	370 mm.